/**********

- @File Name: README.md
- @Description: notes
- @Author: Sevens Zhu
- @Created Time: Thu Jul 17 12:39:29 2025
  **********/

摘要

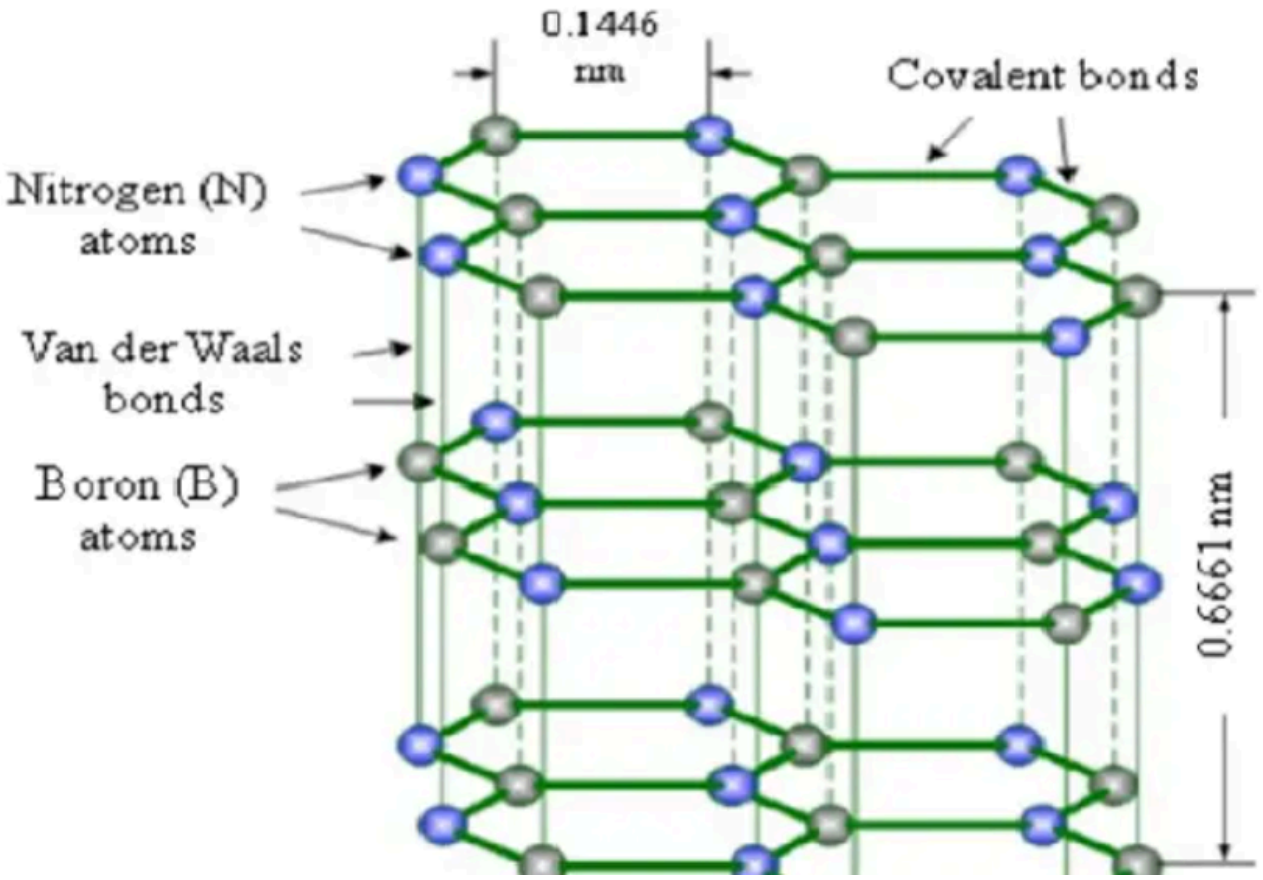
实验目的

将hBN良好分散在与量子点相同的非极性溶剂中

理论基础

1. 量子点与hBN 混合：量子点器件在工作时，随着温度升高，光电转化效率下降。通过hBN的优异散热性能（减少温度升高对113量子点的影响）、层间载流子传输性能（提高113量子点内部电子的跃迁效率）来提升$CsPbBr_3$量子点的光学性能。
2. 通过超声分离(solvent-assisted liquid exfoliation):
3. 共价官能团化（Covalent functionalization）：

> Covalent functionalization is a common method for obtaining dispersed hBN in various solvents, as it offers a way to tune the polarity and hydrophilicity of the material depending on the moiety that is grafted. The majority of reported functionali-
>
> defect sites.[24] They found that increasing the concentration of defect sites improves the reaction efficiency with ODA and increases the concentration of ODA-hBN that can be dispersed in THF.[24] Also in 2010, Nag and coworkers used the Lewis bases


0.1446
nm
Covalent bonds
Nitrogen (N)
atoms
Van der Waals
bonds
Boron (B)
atoms
0.6661 nm